

Amendments to Claims

- 15, 16. (Cancelled)
17. (Original) A fuel cell,
comprising:
an anode support plate and a
cathode support plate and a membrane
electrode assembly disposed between
said anode and cathode support plates,
said membrane electrode assembly
comprising a polymer electrolyte
membrane, at least one of said support
plates comprising a hydrophilic substrate
layer having pores therein;
a water transport plate adjacent to
each said hydrophilic substrate layer, said
water transport plate having a
passageway for a coolant stream and
another passageway for a reactant gas
stream; and
each said at least one support
plate comprising a partially hydrophobic
bilayer disposed between said hydrophilic
substrate layer and said membrane
electrode assembly.
18. (Original) A fuel cell
according to claim 17 wherein:
said bilayer includes 50% to 80%
by volume of hydrophobic phase material,
and between 50% and 20% by volume of
hydrophilic phase material.
19. (Original) A fuel cell,
comprising:
an anode support plate and a
cathode support plate and a membrane
electrode assembly disposed between
said anode and cathode support plates,
said membrane electrode assembly
comprising a polymer electrolyte
membrane, at least one of said support
plates comprising a hydrophilic substrate
layer having pores therein;
a water transport plate adjacent to
each said hydrophilic substrate layer,
each said water transport plate having a
- passageway for a coolant stream and
another passageway for a reactant gas
stream; and
each said one substrate layer
having a porosity of between 65% and
75%.
- 20, 21. (Cancelled)